

IN THE CLAIMS:

1. (Currently Amended) An implant comprising a body having an inner member sheath and at least one outer member sheath, each member sheath being formed from a different bone from a different region in the body and being formed with an exterior surface and an opening defining an interior surface, wherein the exterior surface of each inner member outer sheath contacts the interior surface of no more than one other outer sheath member, wherein the inner and outer members have a shape resembling at least a portion of a tubular member.
2. (Currently Amended) The implant of claim 1, further comprising a core disposed in the inner member sheath and formed from a bone other than the bones of the members sheaths.
3. (Currently Amended) The implant of claim 2, wherein the core is formed of cancellous bone and at least one member sheath is formed of cortical bone.
4. (Currently Amended) The implant of claim 2, wherein at least one member sheath is formed of cancellous bone and the core is formed of cortical bone.
5. (Currently Amended) The implant of claim 2, wherein the bones comprise at least one of the group comprising an autograft, allograft, and xenograft bone tissue.
6. (Original) The implant of claim 5, wherein the bone tissue of at least one bone is partially demineralized or demineralized.
7. (Currently Amended) The implant of claim 2, wherein the body comprises a cross-section of the members sheaths and core, the cross-section including at least a portion of each member sheath and core.
8. (Currently Amended) The implant of claim 7, wherein the members sheaths and core are coupled together with at least one fastener.
9. (Currently Amended) The implant of claim 8, wherein the at least one fastener is selected from at least one of the group comprising a screw, key, pin, peg, rivet, cotter, nail, spike, bolt, stud, staple, boss, clamp, clip, dowel, stake, hook, anchor, tie, band, crimp, and wedge.

10. (Currently Amended) The implant of claim 8, wherein the at least one fastener intersects each of the members sheaths and core.

11. (Currently Amended) The implant of claim 7, wherein at least two of the members sheaths and core are bonded together with a bonding agent.

12. (Currently Amended) The implant of claim 2, wherein at least one of the inner member sheath, an outer member sheath, and the core is at least partially dehydrated to fit against a surrounding mating surface.

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13. (Currently Amended) The implant of claim 2, wherein at least one of the inner member sheath, an outer member sheath, and the core is at least partially dehydrated to fit within a surrounding inner member sheath or outer member sheath having a greater moisture content.

14. (Currently Amended) The implant of claim 1, wherein contacting surfaces of adjacent members sheaths are machined surfaces so that the contour of the contacting surfaces is about the same.

15. (Currently Amended) The implant of claim 14, wherein the machined surfaces permit press-fitting of one member sheath into another member sheath.

16. (Currently Amended) The implant of claim 1, wherein the bones are selected from at least one of the group comprising a femur, tibia, humerus, fibula, ulna, and radius.

17. (Currently Amended) The implant of claim 1, further comprising at least one supplemental member sheath having an interior surface and an exterior surface, wherein the exterior surface of each supplemental member sheath contacts the interior surface of no more than one other member sheath and the interior surface of each supplemental member sheath contacts the exterior surface of no more than one other member sheath, wherein the at least one supplemental member sheath is formed of a material selected from metals, alloys, ceramics, polymers, and composites.

18. (Currently Amended) The implant of claim 1, wherein at least one member sheath is packed with bone growth materials.

19. (Currently Amended) The implant of claim 1, wherein at least one member sheath further comprises alignment indicia.

20. (Original) The implant of claim 1, wherein the exterior surface is spaced from a portion of the interior surface.

21. (Currently Amended) An implant comprising a body formed from a cross-section of a core and a plurality of substantially tubular members sheaths with each member sheath having an inner surface and an outer surface, wherein at least two members sheaths are formed from ~~different~~ bones from different regions of the body, the outer surface of a first member sheath has about the same contour as the inner surface of a second member sheath so that the first and second members sheaths mate together, and the cross-section includes at least a portion of each member sheath and core.

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22. (Currently Amended) The implant of claim 21, wherein the core is formed from a bone other than the bones of the members sheaths.

23. (Currently Amended) The implant of claim 22, wherein the core is formed of cancellous bone and at least one member sheath is formed of cortical bone.

24. (Currently Amended) The implant of claim 22, wherein at least one member sheath is formed of cancellous bone and the core is formed of cortical bone.

25. (Currently Amended) The implant of claim 22, wherein the bones comprise at least one of the group comprising an autograft, allograft, and xenograft bone tissue.

26. (Original) The implant of claim 25, wherein the bone tissue of at least one bone is partially demineralized or demineralized.

27. (Currently Amended) The implant of claim 22, wherein the members sheaths and core are coupled together with at least one fastener.

28. (Currently Amended) The implant of claim 27, wherein the at least one fastener is selected from at least one of the group comprising a screw, key, pin, peg, rivet, cotter, nail, spike, bolt, stud, staple, boss, clamp, clip, dowel, stake, hook, anchor, tie, band, crimp, and wedge.

29. (Currently Amended) The implant of claim 27, wherein the at least one fastener intersects each of the members sheaths and core.

30. (Currently Amended) The implant of claim 22, wherein the members sheaths and core are bonded together with a bonding agent.

31. (Currently Amended) The implant of claim 22, wherein at least one of the first member sheath, second member sheath, and core is at least partially dehydrated to fit against a surrounding mating surface.

32. (Currently Amended) The implant of claim 22, wherein at least one of the first member sheath, second member sheath, and core is at least partially dehydrated to fit within a surrounding first member sheath or second member sheath.

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33. (Currently Amended) The implant of claim 21, wherein contacting surfaces of adjacent members sheaths are machined surfaces so that the contour of the contacting surfaces is about the same.

34. (Currently Amended) The implant of claim 33, wherein the machined surfaces permit press-fitting of one member sheath into another member sheath.

35. (Currently Amended) The implant of claim 21, wherein the bones are selected from at least one of the group comprising a femur, tibia, humerus, fibula, ulna, and radius.

36. (Currently Amended) The implant of claim 21, further comprising at least one supplemental member sheath having an interior surface and an exterior surface, wherein the exterior surface of each supplemental member sheath contacts the interior surface of no more than one other member sheath and the interior surface of each supplemental member sheath contacts the exterior surface of no more than one other member sheath, wherein the at least one supplemental member sheath is formed of a material selected from metals, alloys, ceramics, polymers, and composites.

37. (Currently Amended) The implant of claim 21, wherein at least one member sheath is packed with bone growth materials.

38. (Currently Amended) The implant of claim 21, wherein at least one member sheath further comprises alignment indicia.

39. (Original) The implant of claim 21, wherein the outer surface is separated from a portion of the inner surface.

40. (Currently Amended) An implant comprising a plurality of members having a shape substantially resembling a portion of a tubular member sheaths each defining a hole, and a core sized and configured to fit within in-an the innermost of the members sheaths, wherein the members sheaths are formed from at least two different bones selected from the group comprising a femur, tibia, humerus, fibula, ulna, and radius.

41. (Currently Amended) An implant comprising at least two layers of bone components coupled to each other, the components together defining at least one securing region, and at least one insertable securing element adapted for placement in the at least one securing region, wherein the implant is formed from at least two different bones selected from the group comprising a femur, tibia, humerus, fibula, ulna, and radius.

42. (Original) The implant of claim 41, wherein the at least one securing region is a recess or hole.

43. (Currently Amended) The implant of claim 42, wherein the insertable securing element is selected from at least one of the group comprising a screw, key, pin, peg, rivet, cotter, nail, spike, bolt, stud, staple, boss, clamp, clip, dowel, stake, hook, anchor, tie, band, crimp, or wedge.

44. (Currently Amended) The implant of claim 42, wherein each layer is formed from a different bone selected from at least one of the group comprising a femur, tibia, humerus, fibula, ulna, and radius.

45. (Original) The implant of claim 44, wherein at least one layer is formed of cancellous bone and at least one layer is formed of cortical bone.

46. (Currently Amended) The implant of claim 45, wherein the layers comprise at least one of the group comprising an autograft, allograft, and xenograft bone tissue.

47. (Original) The implant of claim 46, wherein the bone tissue of at least one bone is partially demineralized or demineralized.

48. (Original) The implant of claim 42, wherein the layers are bonded together with a bonding agent.

49. (Original) The implant of claim 42, wherein a first layer is at least partially dehydrated to mate against at least one other layer.

50. (Original) The implant of claim 42, wherein adjacent layers are provided with mutually contacting surfaces that are machined to have about the same contour.

51. (Original) The implant of claim 42, wherein the contacting surfaces of adjacent layers are press-fit together.

52. (Currently Amended) The implant of claim 42, further comprising at least one supplemental layer coupled to at least one of the layers of bone components, wherein the at least one supplemental layer is formed of a material selected from at least one of the group comprising metals, alloys, ceramics, polymers, and composites.

53. (Original) The implant of claim 41, wherein the implant further comprises a chamber packed with bone growth materials.

54. (Original) The implant of claim 41, wherein at least one layer further comprises alignment indicia.

55. (Canceled)

56. (Currently Amended) An implant comprising a body having two outer annular members and at least one inner annular member, wherein at least one of the outer and inner annular members is formed from bone and the outer annular members are coupled together to define a central opening for receiving the at least one inner member.

57. (Previously Added) The implant of claim 56, wherein each annular member has at least one surface that is press-fit with the surface of another annular member.

58. (Previously Added) The implant of claim 57, wherein the outside diameter of the outer annular members is smaller than the outside diameter of the at least one inner annular member.

59. (Previously Added) The implant of claim 57, wherein the implant is symmetrical about an innermost annular member, the diameter of the implant progressively decreasing from the innermost annular member to each outer annular member.

60. (Previously Added) The implant of claim 57, wherein the central opening is packed with at least one of bone material and bone inducing substances.

61. (Previously Added) The implant of claim 57, wherein at least one annular member is formed of cancellous bone and at least one annular member is formed of cortical bone.

62. (Currently Amended) The implant of claim 57, wherein the annular member bones comprise at least one of the group comprising an autograft, allograft, and xenograft bone tissue.

63. (Previously Added) The implant of claim 62, wherein the bone tissue of at least one bone is partially demineralized or demineralized.

64. (Previously Added) The implant of claim 57, wherein a plurality of annular members are coupled together with at least one fastener.

65. (Previously Added) The implant of claim 64, wherein the at least one fastener is selected from a screw, key, pin, peg, rivet, cotter, nail, spike, bolt, stud, staple, boss, clamp, clip, dowel, stake, hook, anchor, tie, band, crimp, and wedge.

66. (Previously Added) The implant of claim 57, wherein a plurality of annular members are bonded together with a bonding agent.

67. (Previously Added) The implant of claim 57, wherein at least one of the annular members is at least partially dehydrated to fit against a surrounding mating surface.

68. (Previously Added) The implant of claim 57, wherein at least one of the annular members is at least partially dehydrated to mate with another annular member.

69. (Previously Added) The implant of claim 56, wherein contacting surfaces of adjacent annular members are machined surfaces so that the contour of the contacting surfaces is about the same.

70. (Currently Amended) The implant of claim 69, wherein the machined surfaces permit press-fitting of ~~one~~ the inner annular member sheath into the central opening formed by the outer annular members ~~another sheath~~.

71. (Currently Amended) The implant of claim 56, wherein the annular member bones are selected from at least one of the group comprising a femur, tibia, humerus, fibula, ulna, and radius.

72. (Previously Added) The implant of claim 56, wherein the annular members are non-circular.

73. (Previously Added) The implant of claim 72, wherein the annular members are generally oblong.

74. (Previously Added) The implant of claim 56, further comprising at least one supplemental annular member coupled to at least one of the annular members formed from bone, wherein the at least one supplemental annular member is formed of a material selected from metals, alloys, ceramics, polymers, and composites.

75. (Previously Added) The implant of claim 56, wherein at least one annular member further comprises alignment indicia.

76. (Previously Added) The implant of claim 56, wherein adjacent surfaces of at least two annular members do not completely contact each other.

77. (Currently Amended) An implant comprising a body having at least two ring-shaped members formed from bone, wherein the innermost ring-shaped member has an outer diameter, the outermost ring-shaped member has an inner diameter, the inner diameter is larger than the outer diameter so that the innermost ring-shaped member is received within the outermost ring-shaped member, ~~that are coupled together to define a central opening.~~

78. (Previously Added) The implant of claim 77, wherein the ring-shaped members have surfaces that mate and press-fit together.